

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/09042

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 G05B11/01

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G05B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 25 41 062 A (TAM METAL PRODUCTS CO) 17 March 1977 (1977-03-17) page 4-13; figure 1 ---	1-4,8-10
X	DE 101 20 273 A (SANSHA ELECTRIC MFG CO) 8 November 2001 (2001-11-08)	1-4,8-10
Y	column 5, line 4 -column 10, line 30; figures 3,4 ---	7
Y	US 2001/050552 A1 (SANDQUIST DAVID A ET AL) 13 December 2001 (2001-12-13) abstract ---	7
A	DE 195 39 519 A (MITSUBISHI ELECTRIC CORP) 2 May 1996 (1996-05-02) abstract --- -/--	1-12

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents :

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier document but published on or after the international filing date

\*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*G\* document member of the same patent family

Date of the actual completion of the international search

18 November 2003

Date of mailing of the international search report

02/12/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Tran-Tien, T

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/09042

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>EP 1 225 453 A (DELPHI TECH INC)  24 July 2002 (2002-07-24)  abstract</p> <p>-----</p>	1-12

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 03/09042

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
DE 2541062	A	17-03-1977	DE 2541062 A1	17-03-1977
DE 10120273	A	08-11-2001	JP 2001313194 A	09-11-2001
			CN 1321058 A	07-11-2001
			DE 10120273 A1	08-11-2001
			GB 2364187 A	16-01-2002
			US 2002001209 A1	03-01-2002
US 2001050552	A1	13-12-2001	EP 1224477 A1	24-07-2002
			WO 0133233 A1	10-05-2001
			US 2002149355 A1	17-10-2002
DE 19539519	A	02-05-1996	JP 8123520 A	17-05-1996
			DE 19539519 A1	02-05-1996
			US 5777870 A	07-07-1998
EP 1225453	A	24-07-2002	US 2002093332 A1	18-07-2002
			EP 1225453 A2	24-07-2002